# CITY OF ROANOKE, VIRGINIA

## OFFICE OF THE CITY ENGINEER

ROANOKE 215 CHURCH AVE. SW, ROOM 350 ROANOKE, VIRGINIA 24011

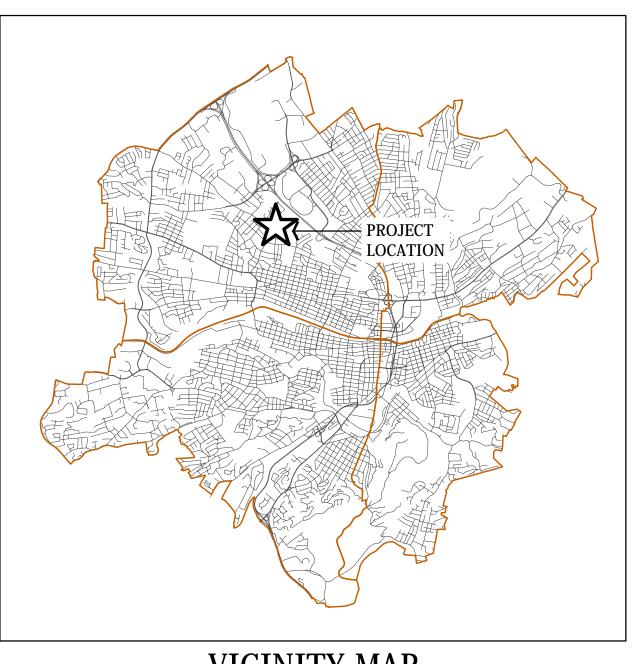
## FY 15 - CURB | GUTTER | SIDEWALK SITE NO. 15 - SPRINGHILL DRIVE NW (TM#2471105)

#### NOTICE: ALL LANDOWNERS, DEVELOPERS AND CONTRACTORS

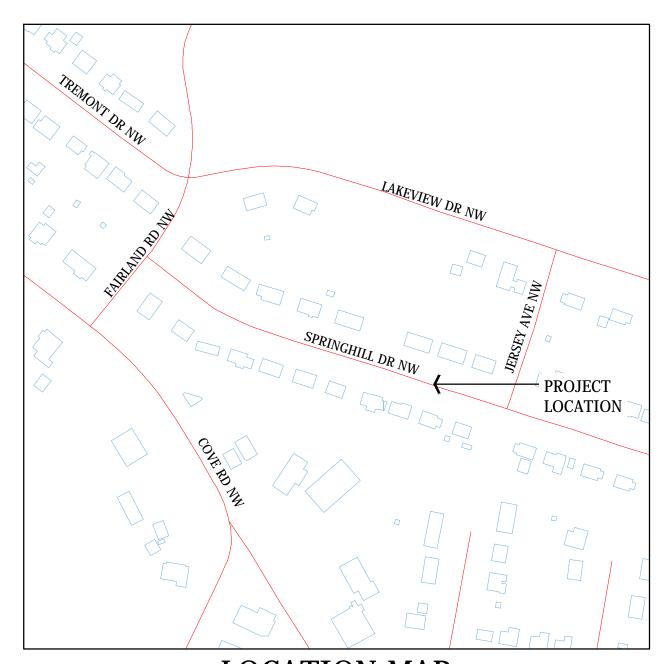
FAILURE TO COMPLY WITH THE CONSTRUCTION PROCEDURE REQUIREMENTS LISTED BELOW MAY RESULT IN THE COSTLY REMOVAL OF STRUCTURES, TIME DELAYS OR THE ISSUANCE OF A STOP WORK ORDER.

#### CONSTRUCTION PROCEDURE REQUIREMENTS

- 1. RIGHT-OF-WAY EXCAVATION PERMIT PRIOR TO THE COMMENCEMENT OF ANY DIGGING, ALTERATION OR CONSTRUCTION WITHIN THE PUBLIC RIGHT-OF-WAY (STREETS, ALLEYS, PUBLIC
- 2. LAND DISTURBANCE PERMIT AN APPROVED EROSION AND SEDIMENT CONTROL PLAN FOR ANY BORROW/FILL SITES ASSOCIATED WITH THE PROJECT MUST BE SUBMITTED PRIOR TO THE
- 3. PLANS AND PERMITS A COPY OF THE PLANS AS APPROVED BY THE CITY (SIGNED BY THE PROPER CITY OFFICIALS) AND ALL PERMITS ISSUED BY THE CITY SHALL BE AVAILABLE AT THE CONSTRUCTION SITE AT ALL TIMES OF ONGOING CONSTRUCTION.
- 4. LOCATION OF UTILITIES THE CONTRACTOR SHALL VERIFY THE LOCATION OF ALL EXISTING UTILITIES PRIOR TO THE COMMENCEMENT OF ANY CONSTRUCTION
- 5. CONSTRUCTION ENTRANCE THE CONTRACTOR SHALL INSTALL AN ADEQUATE CONSTRUCTION ENTRANCE FOR ALL CONSTRUCTION RELATED EGRESS FROM THE SITE. SIZE AND COMPOSITION ENTRANCE SHALL BE AS SHOWN ON THE PLANS.
- 6. STREETS TO REMAIN CLEAN IT SHALL BE THE RESPONSIBILITY OF THE CONTRACTOR TO INSURE THAT THE PUBLIC STREET ADJACENT TO THE CONSTRUCTION ENTRANCE REMAINS FREE OF MUD. DIRT, DUST AND/OR ANY TYPE OF CONSTRUCTION MATERIALS OR LITTER AT ALL TIMES.
- 7. BARRICADES/DITCHES THE CONTRACTOR SHALL MAINTAIN THE INTEGRITY OF ALL EXCAVATED DITCHES AND SHALL FURNISH AND ENSURE THAT ALL BARRICADES PROPER AND NECESSARY FOR THE SAFETY OF THE PUBLIC ARE IN PLACE.
- 8. SEWER AND PAVEMENT REPLACEMENT CONSTRUCTION OF SANITARY SEWERS AND THE REPLACEMENT OF PAVEMENT SHALL BE IN ACCORDANCE WITH APPROVED STANDARDS AND SPECIFICATIONS OF THE CITY OF ROANOKE AND THE WESTERN VIRGINIA WATER AUTHORITY.
- 9. APPROVED PLANS / CONSTRUCTION CHANGES ANY CHANGE OR VARIATION FROM CONSTRUCTION DESIGN AS SHOWN ON THE OFFICIALLY APPROVED PLANS SHALL BE APPROVED BY THE EROSION AND SEDIMENT CONTROL AGENT PRIOR TO SAID CHANGES OR VARIATION IN CONSTRUCTION BEING MADE.
- 10. FINAL ACCEPTANCE / CITY THE OWNER OR DEVELOPER SHALL FURNISH THE CITY OF ROANOKE'S PLANNING BUILDING AND DEVELOPMENT DEPARTMENT WITH A FIELD SURVEYED FINAL CERTIFICATE OF OCCUPANCY BY THE CITY. AS-BUILT PLANS SHALL BE PROVIDED IN THE STATE PLANE VIRGINIA SOUTH COORDINATE SYSTEM, NAD 1983, FIPS 4502 FEET, US SURVEY FEET, DATUM NA 83, IN THE FORM OF 1 PAPER COPY AND 1 DIGITAL AUTOCAD FILE.



**VICINITY MAP** SCALE: 1'' = 8000'



LOCATION MAP SCALE: 1" = 200'

#### SHEET NUMBER SHEET TITLE TITLE SHEET GENERAL NOTES 15.100 15.200 PROPOSED SITE PLAN EROSION & SEDIMENT CONTROL DETAILS 15.201 15.202 TYPICAL CONSTRUCTION DETAILS WATERSHED DRAINAGE MAP & CALCULATIONS 15.300 15.X01

SHEET INDEX

APPROVED FOR CONSTRUCTION			
ROANOKE CITY ENGINEER	DATE		
DIRECTOR OF PUBLIC WORKS	DATE		
DIRECTOR OF UTILITIES AND OPERATIONS	DATE		
	DATE		
	DATE.		

ADVERTISED DATE:	
SET NUMBER:	

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CURB, GUTTER & SIDEWALK IMPROVEMI CITY OF ROANOKE, VIRGINIA	SITE NO. 15 - SPRINGHILL DRIVE N
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LINE+GRADE 418 EAST MAIN STREET CHARLOTTESVILLE, VA 22902 www.line-grade.com

CHECKED:

- CONTRACTOR SHALL BE RESPONSIBLE FOR VERIFYING ALL CONDITIONS, MATERIALS, DIMENSIONS LOCATIONS AND EXISTING ELEMENTS TO REMAIN IN THE FIELD BEFORE PROCEEDINGS WITH ANY WORK. IF CONDITIONS VARY FROM WHAT IS REPRESENTED IN THE DRAWINGS, THE CONTRACTOR SHALL IMMEDIATELY NOTIFY THE ENGINEER.
- 2. VEHICULAR AND PEDESTRIAN TRAFFIC MUST BE MAINTAINED AT ALL TIMES. PROVIDE ADEQUATE PROTECTION FOR THE EXISTING BUILDINGS, BUILDING OCCUPANTS, VEHICLES AND PEDESTRIANS AT ALL TIMES IN ACCORDANCE WITH OSHA AND ALL APPLICABLE STATE AND LOCAL CODES.
- 3. WALKING PATHS ADJACENT TO THE WORK AREAS WILL REMAIN IN USE DURING THE WORK. MATERIALS AND EQUIPMENT SHALL BE STORED IN APPROVED AREAS TO PREVENT IMPACTS ON VEHICLES AND PEDESTRIANS. CONTRACTOR SHALL BE FULLY RESPONSIBLE FOR MEASURES TAKEN TO ENSURE VEHICULAR AND PEDESTRIAN SAFETY THROUGH THE ENTIRE DURATION OF THE WORK. SAFETY IS PARAMOUNT.
- 4. EQUIPMENT AND MATERIALS SHALL BE STORED IN DESIGNATED AREAS AND SHALL NOT ENCUMBER THE OWNER'S OPERATIONS, SURROUNDING RIGHT OF WAY, OR ADJOINING GROUNDS
- 5. ALL WORK AREAS SHALL BE CLEANED DAILY.
- 6. CONTRACTOR SHALL BE RESPONSIBLE FOR PROTECTION OF BUILDINGS ADJACENT TO WORK AREAS. CONTRACTOR SHALL BE RESPONSIBLE FOR ALL COSTS OF DAMAGES RESULTING FROM CONSTRUCTION ACTIVITIES.
- 7. SECTION CUTS AND DETAIL CALLOUTS INDICATED IN THE DRAWINGS ARE TYPICAL FOR THE PROJECT. THEY ARE TO BE CONSIDERED TYPICAL FOR SIMILAR CONDITIONS AND HAVE NOT BEEN SHOWN EVERYWHERE THEY APPLY.
- 8. CONTRACTOR SHALL BE SOLELY RESPONSIBLE FOR JOB SITE SAFETY.
- 9. CONTRACTOR IS RESPONSIBLE FOR COORDINATION OF ALL CONSTRUCTION.
- 10. SYMBOLS IN THE DRAWINGS ARE NOT TO SCALE.
- 11. DO NOT START INSTALLATION OF WORK UNTIL POTENTIAL CONFLICTS HAVE BEEN IDENTIFIED AND ADDRESSED.
- 12. THE CONTRACTOR SHALL BE HELD RESPONSIBLE FOR ALL DAMAGE TO THE EXISTING BUILDINGS AND ADJACENT GROUNDS AND PROPERTY CAUSE BY THE CARELESSNESS OR NEGLECT OF HIS WORKMEN. DAMAGE TO PORTIONS OF THE PROPERTY NOT SUBJECT TO WORK UNDER THE CONTRACT SHALL BE REPAIRED TO THE FULL SATISFACTION OF THE OWNER AND ENGINEER, AT THE CONTRACTOR'S EXPENSE.
- 13. PROTECTION OF THE WORK: PROTECT EFFECTIVELY ALL MATERIALS AND EQUIPMENT DURING THE ENTIRE PERIOD OF CONSTRUCTION. REPLACE MATERIALS AND EQUIPMENT DAMAGED, LOST OR STOLEN WITHOUT ADDITIONAL COST TO
- 14. PROTECT EXISTING MATERIALS DURING INSTALLATION OF TEMPORARY PROTECTION AND CONSTRUCTION. DO NOT DEFACE OR REMOVE EXISTING MATERIALS IF INTENDED TO STAY. ATTACHMENTS OF TEMPORARY PROTECTION TO EXISTING CONSTRUCTION SHALL BE APPROVED BY THE ENGINEER PRIOR TO INSTALLATION.
- 15. OBTAIN ENGINEER REVIEW AND WRITTEN APPROVAL IN THE FORM OF A CONSTRUCTION CHANGE DIRECTIVE OR SUPPLEMENTAL INSTRUCTION BEFORE MAKING CHANGES OR ADDITIONS TO CONSTRUCTION OR REMOVING MATERIALS THAT WERE INTENDED TO REMAIN.
- 16. CONTRACTOR SHALL PROVIDE AND MAINTAIN ADEQUATE FIRE PROTECTION IN THE FORM OF FIRE EXTINGUISHER OR OTHER EFFECTIVE MEANS OF EXTINGUISHING FIRE, READY FOR INSTANT USE, DISTRIBUTED AROUND THE PROJECT AND IN AND ABOUT TEMPORARY, INFLAMMABLE STRUCTURES DURING CONSTRUCTION OF WORK. EXISTING FIRE HOSE CONNECTIONS SHALL BE ACCESSIBLE AT ALL TIMES BY FIRE DEPARTMENT PERSONNEL. MATERIAL SAND DEBRIS SHALL NOT BE STORED IN FRONT OF THE CONNECTION, THUS PREVENTING ACCESS. THE CONTRACTOR SHALL COORDINATE ACCESS PROCEDURES WITH THE FIRE MARSHALL.
- 17. GASOLINE AND OTHER FLAMMABLE LIQUIDS SHALL BE STORED AND DISPENSED FROM UL LISTED SAFETY CONTAINERS IN CONFORMANCE WITH THE NATIONAL BOARD OF FIRE UNDERWRITERS' RECOMMENDATIONS.
- 18. CONTRACTOR SHALL CALL MISS UTILITY AT 1-800-552-7001 BEFORE CONSTRUCTION COMMENCES.

#### **GENERAL LAYOUT NOTES:**

- 1. ALL ROADWAY DIMENSIONS ARE TO FACE OF CURB. ALL FILLET RADII SHALL BE MEASURED TO FACE OF CURB.
- 2. ALL CURVE DATA PERTAINS TO THE ALIGNMENT AS DEFINE IN THE DRAWINGS.
- 3. ALL STORM DRAIN DIMENSIONS ARE FROM CENTER OF STRUCTURE TO CENTER OF STRUCTURE OR FROM CENTER OF STRUCTURE TO END OF FLARED END SECTION.
- 4. ANY EXISTING DRIVEWAY WIDTH THAT DOES NOT CONFORM TO THE ZONING ORDINANCE SHALL NOT BE INCREASED.

#### GRADING, PAVING AND DRAINAGE NOTES:

- CONTRACTOR SHALL CONSTRUCT AND MAINTAIN APPROPRIATE MINIMUM STANDARD PROVISIONS IN ACCORDANCE WITH THE VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK TO PREVENT SOIL FROM BEING ERODED FROM SITE INTO ADJACENT DRAINAGE SYSTEMS, DITCHES, OR WATERCOURSES. ANY MATERIAL THAT IS SO ERODED SHALL BE PROMPTLY REMOVED. SOIL SEDIMENT AND EROSION CONTROL TO BE UTILIZED IN ACCORDANCE WITH MINIMUM CRITERIA OF VIRGINIA EROSION AND SEDIMENT CONTROL HANDBOOK.
- 2. PAVEMENT REPAIR SHALL CONSIST OF MILLING AND REPAVING 10' FROM THE EDGE OF THE GUTTER PAN.
- 3. GRADING AND PAVING TO BE CONSTRUCTED IN ACCORDANCE WITH THE 2007 VDOT "ROAD & BRIDGE SPECIFICATIONS".
- 4. ALL SIDEWALKS SHALL HAVE TRANSVERSE DUMMY JOINTS AT 5-FOOT INTERVALS; 1/2-INCH TRANSVERSE EXPANSION JOINTS SPACED AT 30-FOOT INTERVALS. DUMMY JOINTS SHALL BE 1 INCH DEEP BY 3/16 INCH WIDE, USING A 1/2-INCH RADIUS. EXPANSION JOINTS ARE TO BE CONSTRUCTED USING EXPANSION MATERIAL PLACED 2 INCH BELOW FINISHED SURFACE. ROUND EDGES OF CONCRETE WITH 1/2-INCH RADIUS.
- 5. CURB CUT RAMPS SHALL BE IN ACCORDANCE WITH UNIFORM FEDERAL ACCESSIBILITY STANDARDS.
- 6. PAVEMENT MARKINGS AND PAINT LINES SHALL BE TYPE A AS DEFINED BY THE 2007 VDOT ROAD AND BRIDGE SPECIFICATIONS, AND PLACED AS INDICATED IN THE DRAWINGS. PAINT SHALL BE APPLIED TO DRY AND THOROUGHLY CLEAN SURFACE IN ACCORDANCE WITH THE MANUFACTURER'S RECOMMENDATIONS.
- 7. FINISH CONTOURS INDICATE SLOPE OF LAND AND DIRECTION OF DRAINAGE, AS WELL AS ELEVATION.
- 8. ALL TRANSITIONS IN GRADING SHALL BE SMOOTH ROUNDED CURVES.
- 9. DRAINAGE COURSES ACROSS GRASSED AREAS SHALL BE ROUNDED SWALES AND NOT CUT DITCHES WITH STRAIGHT SLOPING SIDES, UNLESS NOTED OTHERWISE.
- 10. FINISHED GRADE SHALL SLOPE UNIFORMLY BETWEEN CONTOURS AND/OR SPOT ELEVATIONS SHOWN.

#### **EXISTING UTILITY NOTES:**

- 1. THE CONTRACTOR SHALL VERIFY THE LOCATION OF EXISTING UTILITIES IN THE FIELD PRIOR TO COMMENCING CONSTRUCTION LOCATIONS AND SIZE OF EXISTING UTILITIES WERE LOCATED USING ABOVE GRADE FEATURES AND USING THE BEST AVAILABLE RECORDS THE CONTRACTOR SHALL VERIFY THEIR LOCATION IN THE FIELD BEFORE CONSTRUCTION COMMENCES. NO GUARANTEE IS MADE THAT UTILITIES SHOWN COMPRISE ALL UTILITIES IN THE AREA, EITHER IN SERVICE OR ABANDONED.
- 2. ALL EXISTING UTILITIES SHALL REMAIN IN PLACE, UNLESS OTHERWISE NOTED ON THE PLANS. THE CONTRACTOR SHALL CARRY ON HIS WORK AROUND SUCH UTILITIES AT HIS OWN RISK. ALL DAMAGE TO EXISTING UTILITIES SHALL BE REPAIRED BY THE CONTRACTOR AT NO EXPENSE TO THE OWNER.
- 3. THE REMOVAL AND RELOCATION OF ALL UTILITIES AND APPURTENANCES WILL BE AT THE RISK OF THE CONTRACTOR. THESE INCLUDE, BUT ARE NOT LIMITED TO, POWER, SEWER, WATER, GAS, TELEPHONE, COMMUNICATION, CABLE, FIBER OPTICS, ETC. REMOVAL AND RELOCATION OF PRIVATE UTILITIES SHALL BE COORDINATED WITH THE UTILITY OWNER.

#### PROPOSED UTILITY NOTES:

- 1. ALL UTILITY INSTALLATION WORK SHALL BE IN ACCORDANCE WITH ALL FEDERAL, STATE, AND LOCAL LAWS, REGULATIONS, AND ORDINANCES. WATER AND SEWER INSTALLATION SHALL BE IN ACCORDANCE WITH VIRGINIA DEPARTMENT OF HEALTH REGULATIONS, VIRGINIA DEPARTMENT OF ENVIRONMENTAL QUALITY, AND ANY LOCAL REGULATIONS OR ORDINANCES.
- 2. THE CONTRACTOR SHALL RELOCATE WATER METERS AND LATERALS, AS REQUESTED, SUBJECT TO INSPECTION BY WESTERN VIRGINIA WATER AUTHORITY.
- 3. ALL UTILITY TRENCHING EARTHWORK SHALL BE IN ACCORDANCE WITH THE VIRGINIA DEPARTMENT OF TRANSPORTATION ROAD AND BRIDGE SPECIFICATIONS (VDOT RBS&S) EXCEPT WHERE OTHERWISE INDICATED ON THE TRENCHING DETAILS INCLUDED IN THESE DOCUMENTS.
- 4. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL, DETAILED AND TO SCALE, PROFILE SHOP DRAWINGS FOR WATER DISTRIBUTION PIPING, SEWER PIPING, AND STORM DRAINAGE PIPING THAT INCLUDE LOCATIONS OF EXISTING AND NEW PIPES CROSSING THE MAIN BEING PROFILED. INCLUDE ALL FITTINGS, MANHOLES, AND/OR STORM INLET LOCATIONS ON THE SHOP DRAWINGS. INDICATE THE CLEARANCE BETWEEN PIPES AT UTILITY CROSSINGS.
- 5. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL PRODUCT INFORMATION DATA SHEETS FOR ALL PIPING AND
- 6. CONTRACTOR SHALL SUBMIT TO THE ENGINEER FOR APPROVAL SHOP DRAWINGS FOR ALL SEWER MANHOLES, STORM DRAIN MANHOLES AND STORM DRAIN INLETS. SHOP DRAWINGS SHALL INDICATE OVERALL HEIGHT OF THE STRUCTURE, INVERTS OF ALL PIPES ENTERING THE STRUCTURE, ANGLE BETWEEN PIPES ENTERING THE STRUCTURE, FRAME AND COVER (OR GRATE) PRODUCT INFORMATION INCLUDING DIMENSIONS, STRUCTURE WALL AND BASE THICKNESS, AND REQUIRED INTERIOR COATINGS.

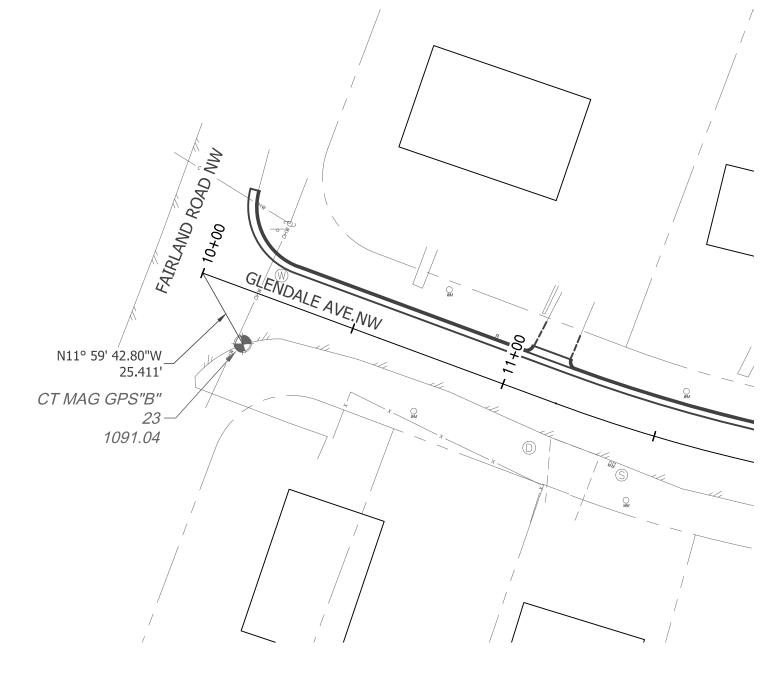
#### SUGGESTED CONSTRUCTION SEQUENCING:

- 1. INSTALL SILT FENCE AS INDICATED IN THE DRAWINGS.
- INSTALL STORMWATER INLET PROTECTION AROUND EXISTING DRAINAGE STRUCTURES.
- PROTECT PERMANENT VEGETATION FOR THE DURATION OF THE PROJECT.
- DEMOLISH EXISTING ITEMS MARKED FOR DEMOLITION AS INDICATED IN THE DRAWINGS
- RELOCATE EXISTING UTILITIES ARE REQUIRED AND OR SHOWN IN THE DRAWINGS.
- CONSTRUCT NEW STORM STRUCTURES, IF APPLICABLE, STARTING AT THE DOWNSTREAM TERMINUS OR TIE-IN. BACKFILL EXCAVATION AND TRENCH AREA.
- INSTALL NEW CURB, GUTTER AND OR SIDEWALK AS INDICATED IN THE DRAWINGS, AS APPLICABLE.
- 9. FOR GRASSY AREAS: INSTALL PERMANENT SEEDING AND MULCH. STABILIZE ALL DISTURBED AREAS. 10. FOR GRAVEL AREAS: RESTORE GRAVEL AFTER TRENCHING AND EXCAVATION OPERATIONS ARE COMPLETE.
- 11. REPAIR ANY INADVERTENT EROSION AND REMOVE ANY INADVERTENT SEDIMENTATION.
- 12. DRESS AND OVER SEED ALL DISTURBED AREAS AS NECESSARY TO AFFECT PERMANENT VEGETATIVE COVER.
- 13. STABILIZE ALL REMAINING DISTURBED AREAS WITH TOPSOIL, SEED AND STRAW ONCE WORK IS COMPLETE. 14. AFTER FINAL SITE STABILIZATION AND APPROVAL FROM THE APPROPRIATE EROSION AND SEDIMENT CONTROL AUTHORITY, THE REMOVE SILT FENCE, INLET PROTECTION AND OTHER STABILIZATION MEASURES.

#### **ESTIMATED QUANTITIES:**

Site No. 15 - Springhill Drive NW						
ltam	Quantity	Linear Feet	Width Area		Land Disturbance	Disturbed Area
Item			(ft)	(square feet)	(YES or NO)	(square feet)
Curb and Gutter (CG-6)	-	848	2	1696	NO	901
Residential Entrance (CG-9B)	8	-	-	-	NO	
Curb Inlet (DI-3C)	1	-	-	-	NO	
Storm Drain Manhole (MH-1)	1	-	-	-	NO	
Stormdrain Pipe (18" RECP)	-	48	-	-	NO	
Silt Fence	-	800	-	-	NO	
Asphalt Restoration	-	-	-	8480	NO	

Total Land Disturbance (SF)



### ALIGNMENT TIE-DOWN

SCALE: 1" = 30'

NOTE: SEE ATTACHED TOPO AND BOUNDARY SURVEY BY PARKER DESIGN GROUP FOR ADDITIONAL INFORMATION.

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418 EAST MAIN STREET

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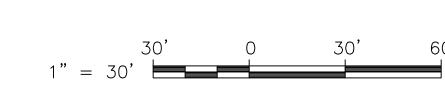
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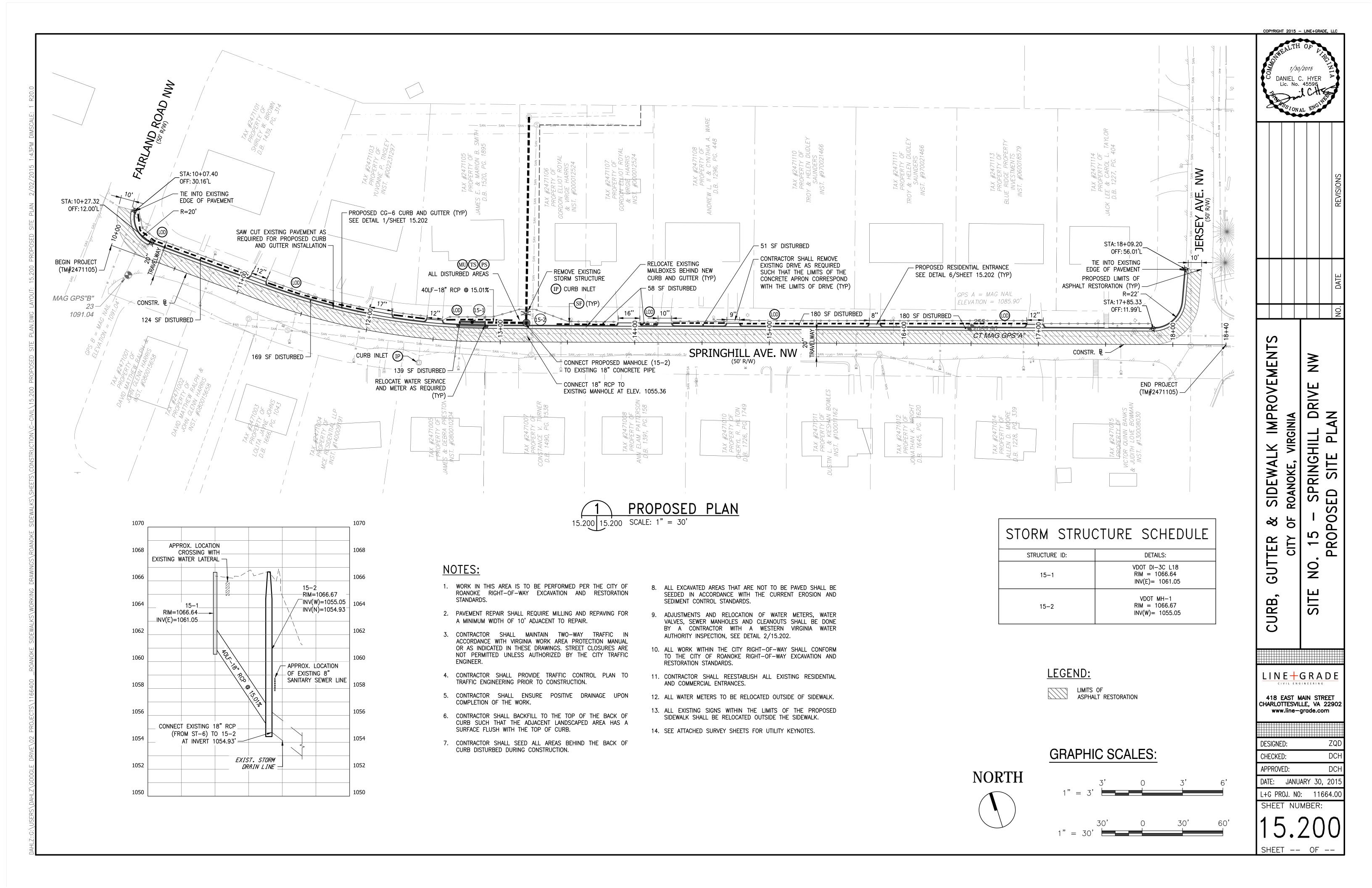
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GRAPHIC SCALE:



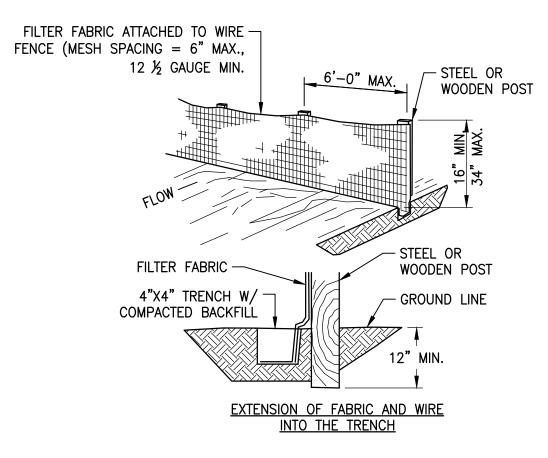


### **CURB INLET PROTECTION** 15.201 15.201 SCALE: N.T.S.

#### SEEDING TABLES

PERMANENT S	TABLE 3.32-C (Revised June 2003) SEEDING SPECIFICATIONS FOR APPALACHI	AN/MOUNTAIN AREA
	SEED <sup>1</sup>	
LAND USE	SPECIES	APPLICATION RATES
	Tall Fescue <sup>1</sup>	90-100
Minimum Care Lawn	Perennial Ryegrass <sup>2</sup>	0-10
(Commercial or Residential)	Kentucky Bluegrass <sup>1</sup>	0-10
		TOTAL: 200-250 II
	Minimum of three (3) up to five (5) varieties	1
High-Maintenance Lawn	of Kentucky Bluegrass from approved list	TOTAL: 125 lb
	for use in Virginia <sup>1</sup>	100 !!
	Tall Fescue <sup>1</sup>	128 lk
General Slope (3:1 or less)	Red Top Grass or Creeping Red Fescue	2
	Seasonal Nurse Crop <sup>3</sup>	20 I TOTAL: 150 I
	Tall Fescue <sup>1</sup>	101AL. 1301
	Red Top Grass or Creeping Red Fescue	2 1
Low-Maintenance Slope	Seasonal Nurse Crop <sup>3</sup>	20
(Steeper than 3:1)	Crownyetch <sup>4</sup>	20
	Clowilvetcii	TOTAL: 150 II
variety list is available at the lo http://sudan.cses.vt.edu/html/7 2 - Perennial Ryegrass will ger cover and erosion resistance f	accordance with seeding dates as stated below March, April - May 15 <sup>th</sup>	304-746-4884 or at n Tall Fescues, thereby providing
	August 16 <sup>th</sup> - September, October November - Februaryoperly inoculated. If Flatpea is used, increase to any slope or low maintenance mixture during wa	Winter Rye 30 lbs/acre. If Weeping
Lovegrass is used, include in a	November - February roperly inoculated. If Flatpea is used, increase to	Winter Rye 30 lbs/acre. If Weeping

	<u>SEED</u>	
APPLICATION DATES	SPECIES	APPLICATION RATES
Sept. 1 - Feb. 15	50/50 Mix of Annual Ryegrass (Iolium multi- florum) & Cereal (Winter) Rye (Secale cereale)	50 -100 (lbs/acre)
Feb. 16 - Apr. 30	Annual Ryegrass (Iolium multi-florum)	60 - 100 (lbs/acre)
May 1 - Aug. 31	German Millet	50 (lbs/acre)
	FERTILIZER & LIME	
<ul> <li>Apply 10-10-</li> </ul>	-10 <b>fertilizer</b> at a rate of 450 lbs. / acre (or 10 lbs. / 1,	000 sq. ft.)



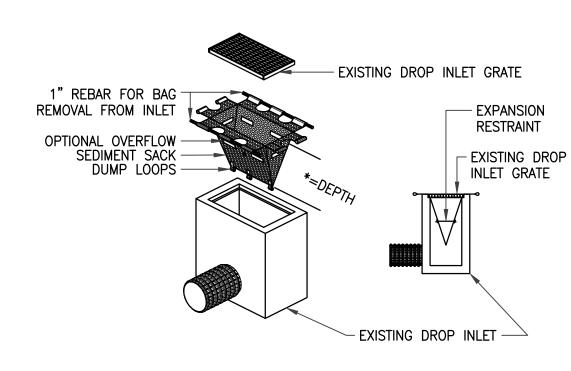
## TEMPORARY SILT FENCE 15.201 15.201 SCALE: N.T.S.

#### EROSION AND SEDIMENT CONTROL LEGEND

- When applying Slowly Available Nitrogen, use rates available in Erosion & Sediment Control Technical Bulletin

# 4, 2003 Nutrient Management for Development Sites at http://www.dcr.state.va.us/sw/e&s.htm#pubs

3.05	SILT FENCE	SF	-00
3.07	STORM DRAIN INLET PROTECTION		
3.31	TEMPORARY SEEDING	TS	—(B)—
3.32	PERMANENT SEEDING	PS	
3.35	MULCHING	$\bigg] \hspace{-1.5em} \bigg[ \hspace{-1.5em} \begin{array}{c} \hspace{-1.5em} \text{MU} \end{array} \hspace{-1.5em} \bigg]$	
3.38	TREE PRESERVATION & PROTECTION	TP	
	LIMITS OF DISTURBANCE		



\* DEPTH OF THE SEDIMENT SACK SHALL BE DETERMINED BY THE DEPTH AND FLOW REQUIREMENTS OF THE DROP INLET STRUCTURE AND THE MANUFACTURER'S RECOMENDATIONS.

#### SEDIMENT SACK SPECIFICATIONS

THE SEDIMENT SACK SHALL BE MANUFACTURED FROM A WOVEN POLYPROPYLENE FABRIC THAT MEETS OR EXCEEDS THE FOLLOWING SPECIFICATIONS.

**PROPERTIES** 265 LBS GRAB TENSILE STRENGTH GRAB 20% TENSILE ELONGATION 135 LBS

PUNCTURE 420 PSI
MULLEN BURST 45 LBS
TRAPEZOID TEAR UV 90%
RESISTANCE 20 US SIEVE APPARENT OPENING 200 GAL/MIN/SQ SIZE FLOW RATE FT 1.5 SEC-1

PERMITTIVITY OIL-ABSORBANT SEDIMENT SACK

THE SEDIMENT SACK SHALL BE MADE FROM A WOVEN POLYPROPYLENE FABRIC WITH AN OIL ABSORBENT PILLOW INSERT. WHERE A HIGH OIL CONTENT IN THE STORM WATER SHALL OCCUR, AN OIL SEDIMENT SACK MADE COMPLETELY OF AN OIL ABSORBTION MATERIAL WITH A WOVEN PILLOW INSERT SHALL BE USED.

DROP INLET PROTECTION 15.201 15.201 SCALE: N.T.S.

**IMPROVEMENT** NW TAILS DRIVE OL DE SPRINGHILL DR MENT CONTROL VIRGINIA SIDEWALK ROANOKE, MENT EDIN ಶ OF 5 S GUTTER CITY SITE NO. EROSION

LINE+GRADE

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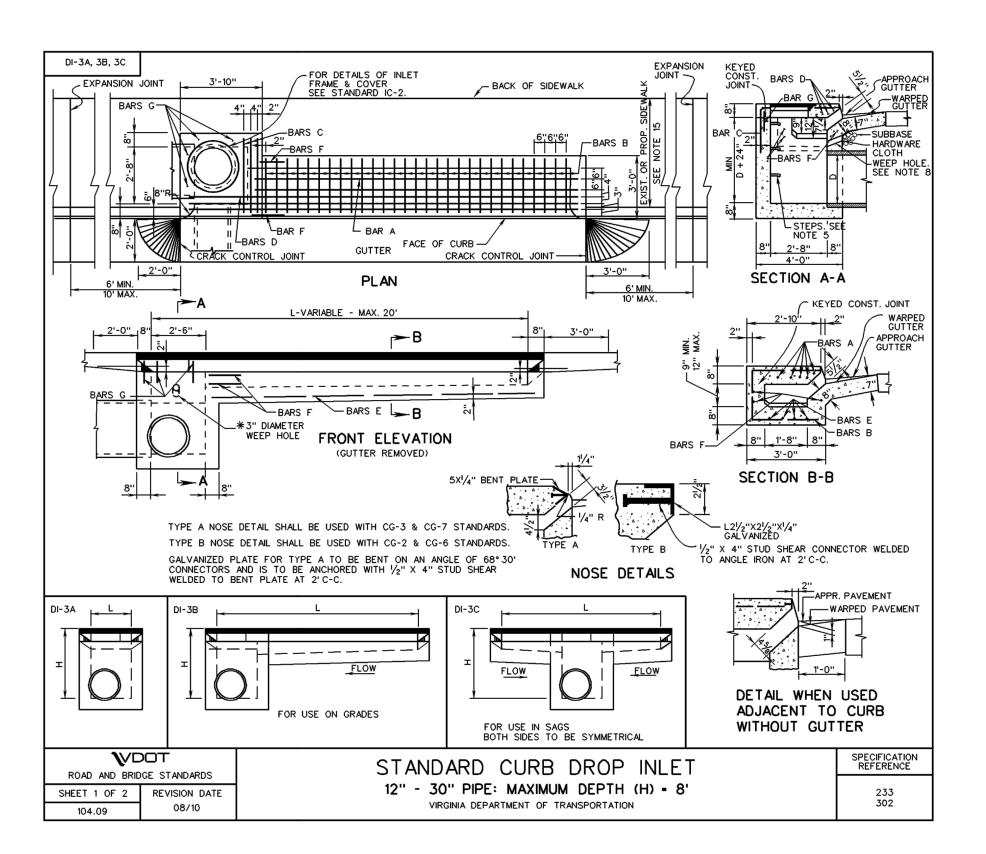
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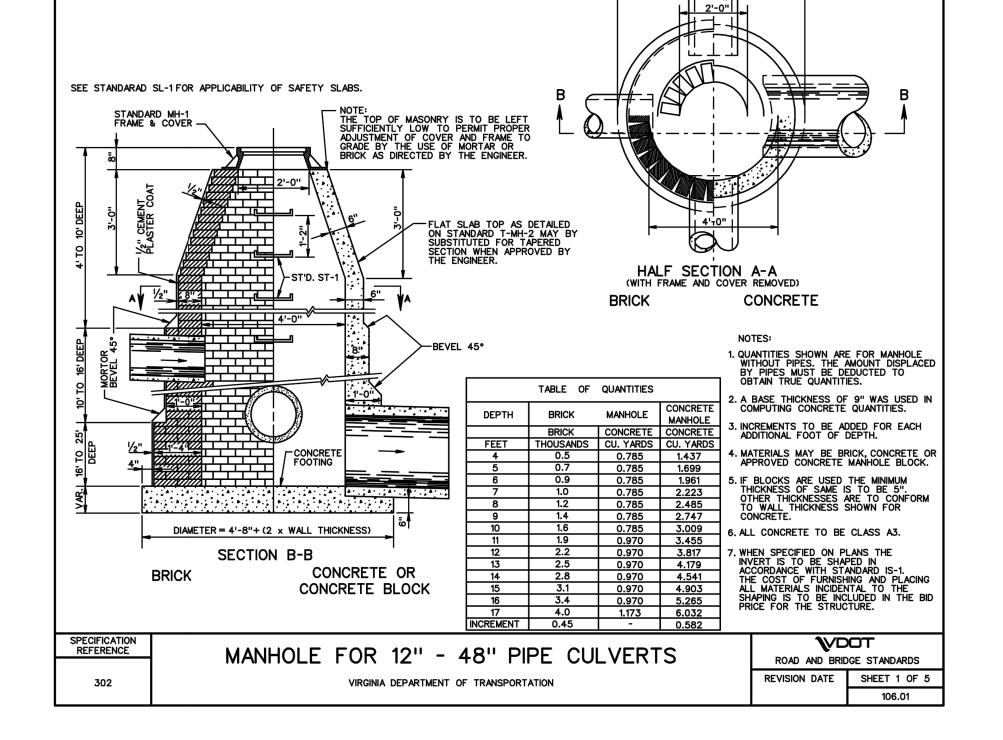
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DATE: JANUARY 30, 2015 L+G PROJ. NO: 11664.00

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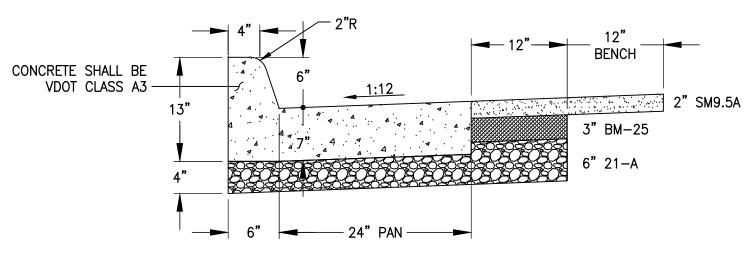
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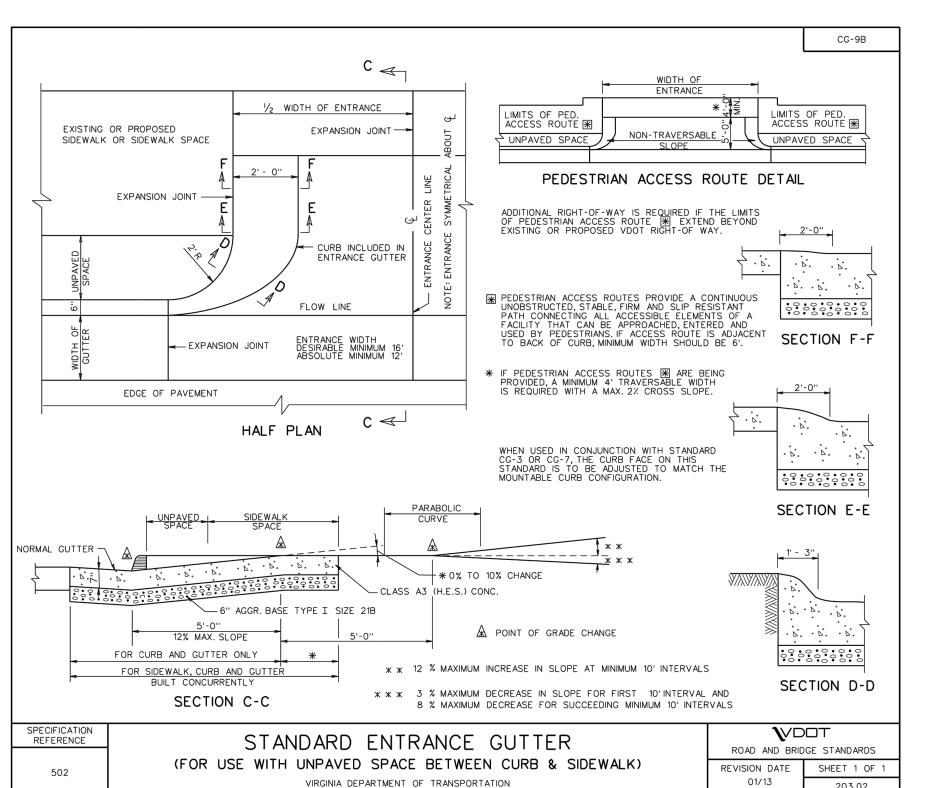
MH-1

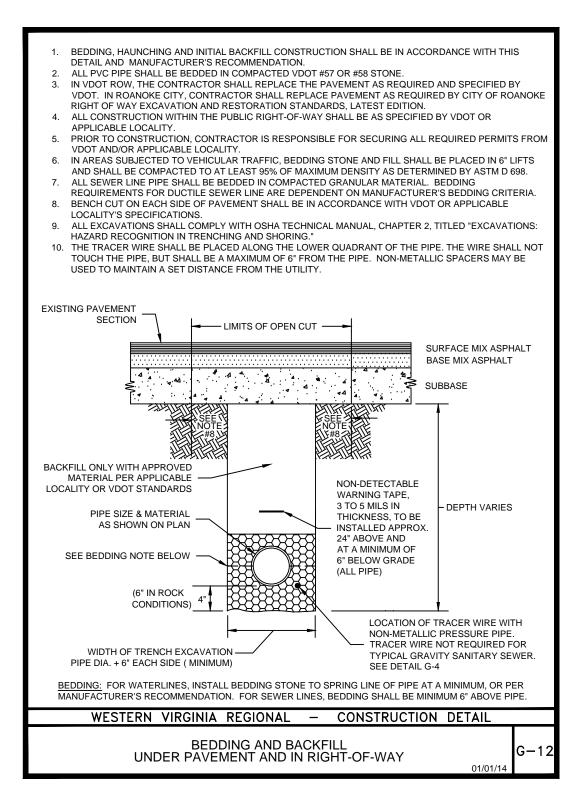
HALF PLAN VIEW 4'-8"+ (2 x WALL THICKNESS)

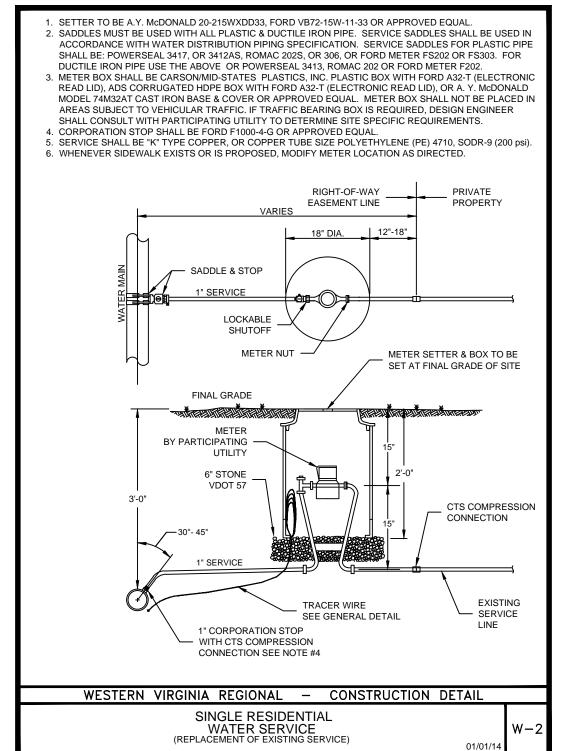




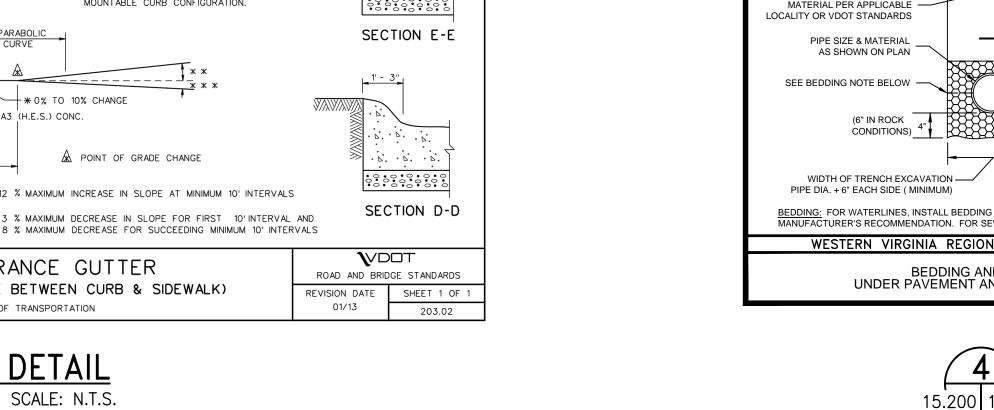




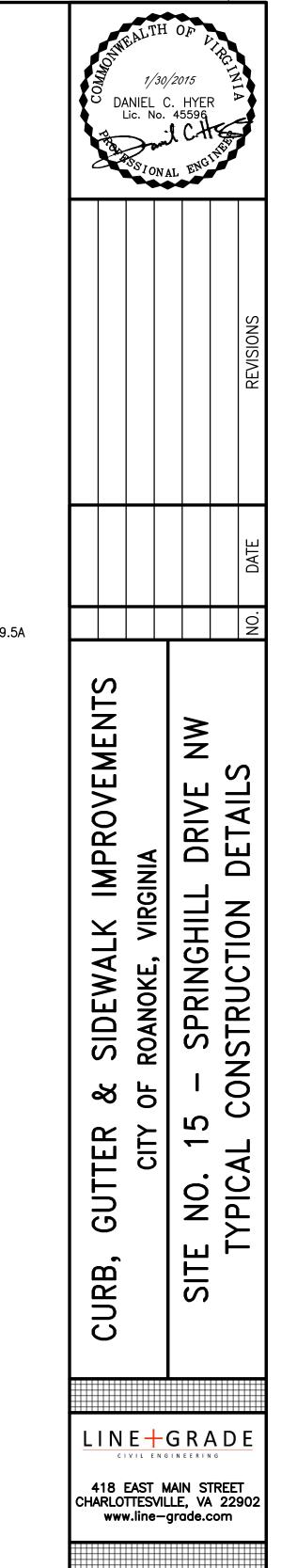




SINGLE RESIDENTIAL WATER SERVICE



L+G PROJ. NO: 11664.00



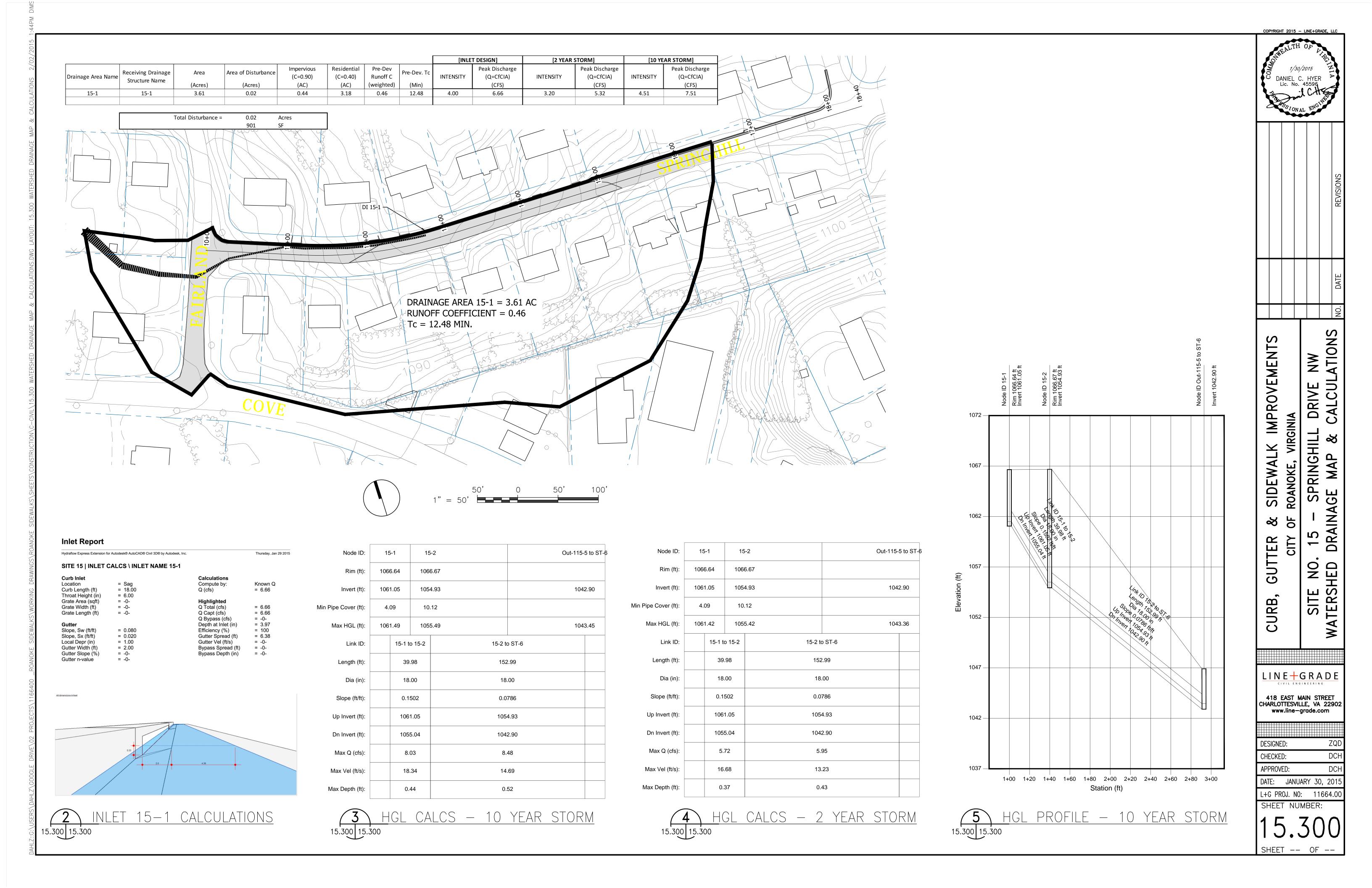
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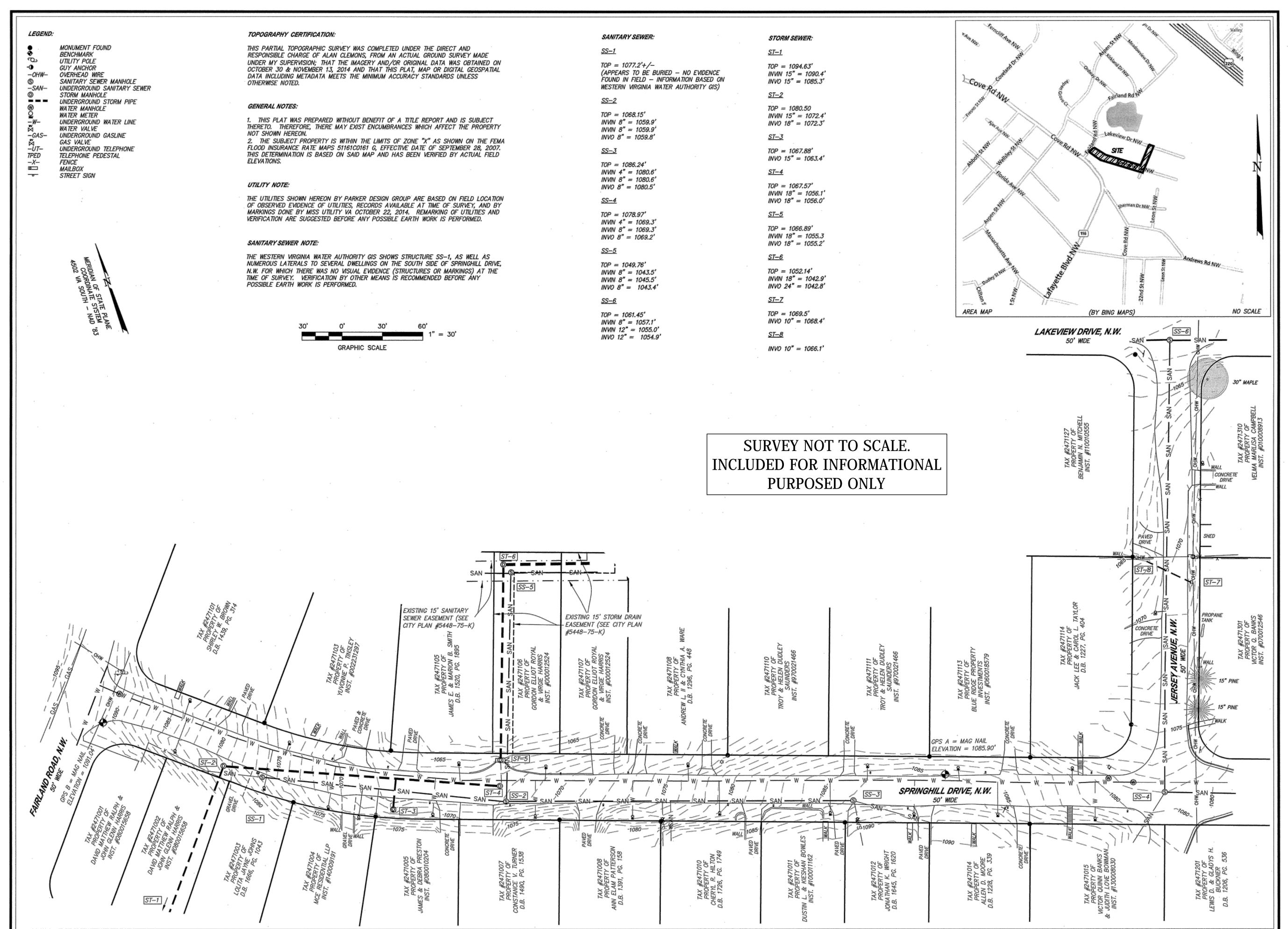
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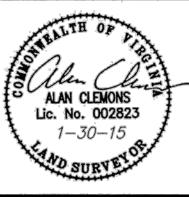


parker DESIGN GROUP

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Survey for Roanoke City Right of Way Improvements Site #15 - Springhill Drive, N.W.

EVICIONS

Jersey Avenue. NW Topography
5 January. 2018
Easements Addec
30 January. 2015

DESIGNED BY: REC

DRAWN BY: REC
CHECKED BY: MAC
SCALE: 1"=30'
DATE: 14 November, 2014

SHEET TITLE:

Topographic Survey

